

**COVER PAGE FOR TEST REPORT**

Product Category:	Power Supplies for Information Technology Equipment Including Electrical Business Equipment
Product Category CCN:	QQGQ, QQGQ7
Test Procedure:	Listing
Product:	AC POWER ADAPTER
Model/Type Reference:	PSAA18U-090, PSAA18U-120, PSAA18U-150, PSAA18U-240.
Rating(s):	Input: 100 - 240Vac, 50-60Hz, 0.6A;  Output: For Model PSAA18U-090: 9Vdc, 2A; For Model PSAA18U-120: 12Vdc, 1.5A; For Model PSAA18U-150: 15Vdc, 1.2A; For Model PSAA18U-240: 24Vdc, 0.75A.
Standards:	UL 60950-1, 1st Edition, 2007-10-31 (Information Technology Equipment - Safety - Part 1: General Requirements) CSA C22.2 No. 60950-1-03, 1st Edition, 2006-07 (Information Technology Equipment - Safety - Part 1: General Requirements)
Applicant Name and Address:	PHIHONG TECHNOLOGY CO LTD 568 FU XING 3RD RD GUISHAN SHIANG TAOYUAN HSIEN 33383 TAIWAN
This Report includes the following parts, in addition to this cover page: <ol style="list-style-type: none"><li>1. Specific Inspection Criteria</li><li>2. Specific Technical Criteria</li><li>3. Clause Verdicts</li><li>4. Critical Components</li><li>5. Test Results</li><li>6. National Differences</li><li>7. Enclosures</li></ol>	

This is to certify that representative samples of the products covered by this Test Report have been investigated in accordance with the above referenced Standards. The products have been found to comply with the requirements covering the category and the products are judged to be eligible for Follow-Up Service under the indicated Test Procedure. The manufacturer is authorized to use the UL Mark on such products which comply with this Test Report and any other applicable requirements of Underwriters Laboratories Inc. ('UL') in accordance with the Follow-Up Service Agreement. Only those products which properly bear the UL Mark are considered as being covered by UL's Follow-Up Service under the indicated Test Procedure.

The applicant is authorized to reproduce the referenced Test Report provided it is reproduced in its entirety.

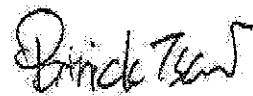
Any information and documentation involving UL Mark services are provided on behalf of Underwriters Laboratories Inc. (UL) or any authorized licensee of UL.

Test Report By:



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## **SPECIFIC INSPECTION CRITERIA**

BA1.0	<b>Special Instructions to UL Representative</b>
BA1.1	<ul style="list-style-type: none"> <li>- Inspect the transformer (T1) listed in BD1.1 per AA1.1- (C).</li> <li>- When the tests are conducted at other location, inspect test record and specification sheet provided by the component manufacturer.</li> <li>- Verify the specification sheet indicates 100% routine test specified in BD1.1 be conducted at the component manufacturer.</li> </ul>

BB1.0	<b>Supporting Documentation</b>
BB1.1	<p>The following documents located at the beginning of this Procedure supplement the requirements of this Test Report:</p> <ul style="list-style-type: none"> <li>A. Authorization - The Authorization page may include additional Factory Identification Code markings.</li> <li>B. Generic Inspection Instructions - <ul style="list-style-type: none"> <li>i. Part AC details important information which may be applicable to products covered by this Procedure. Products described in this Test Report must comply with any applicable items listed unless otherwise stated in the body of this Test Report.</li> <li>ii. Part AE details any requirements which may be applicable to all products covered by this Procedure. Products described in this Test Report must comply with any applicable items listed unless otherwise stated in the body of each Test Report.</li> <li>iii. Part AF details the requirements for the UL Certification Mark which is not controlled by the technical standard used to investigate these products. Products are permitted to bear only the Certification Mark(s) corresponding to the countries for which it is certified, as indicated in each Test Report.</li> </ul> </li> </ul>

BC1.0	<b>Markings and instructions</b>	
BC1.1	The following markings and instructions are provided as indicated.	
BC1.2	All clause references are from UL 60950-1, 1st Edition, 2007-10-31 (Information Technology Equipment - Safety - Part 1: General Requirements).	
Standard Clause	Clause Title	Marking or Instruction Details
1.7.1	Power rating - Ratings	Ratings (voltage, frequency/dc, current)
	Power rating - Company identification	Listee's or Recognized company's name, Trade Name, Trademark or File Number
	Power rating - Model	Model Number
1.7.6	Fuses - Rating	Rated current and voltage and type located on or adjacent to fuse or

		fuseholder.
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BD1.0	<b>Production-Line Testing Requirements</b>						
BD1.1	Electric Strength Test Special Constructions - Refer to Generic Inspection Instructions, Part AC for further information.						
	Model	Component	Removable Parts	Test probe location	Test Potential V rms V dc		Test Time, s
	PSAA18U-090, PSAA18U-120, PSAA18U-150, PSAA18U-240	Transformer, T1	N/A	Primary to Secondary	3000	424 2	1
BD1.2	Earthing Continuity Test Exemptions - This test is not required for the following models:			PSAA18U-090, PSAA18U-120, PSAA18U-150, PSAA18U-240.			
BD1.3	Electric Strength Test Exemptions - This test is not required for the following models:						
BD1.4	Electric Strength Test Component Exemptions - The following solid-state components may be disconnected from the remainder of the circuitry during the performance of this test:						

BE1.0	<b>Sample and Test Specifics for Follow-Up Tests at UL</b>					
BE1.1	Model	Component	Material	Test	Sample(s)	Test Specifics
	N/A					

## **SPECIFIC TECHNICAL CRITERIA**

<b>UL 60950-1, First Edition</b> <b>Information technology equipment - Safety-</b> <b>Part 1: General Requirements</b>	
Report Reference No.....	E127643-A168-UL-1
Compiled by .....	Max Ma
Reviewed by .....	Patrick Tsai
Date of issue .....	2009-05-04
Standards .....	UL 60950-1, 1st Edition, 2007-10-31 (Information Technology Equipment - Safety - Part 1: General Requirements) CSA C22.2 No. 60950-1-03, 1st Edition, 2006-07 (Information Technology Equipment - Safety - Part 1: General Requirements)
Test procedure .....	Listing
Non-standard test method .....	N/A
<b>Test item</b> description .....	AC POWER ADAPTER
Trademark .....	None
Model and/or type reference .....	PSAA18U-090, PSAA18U-120, PSAA18U-150, PSAA18U-240.
Rating(s) .....	Input: 100 - 240Vac, 50-60Hz, 0.6A;  Output: For Model PSAA18U-090: 9Vdc, 2A; For Model PSAA18U-120: 12Vdc, 1.5A; For Model PSAA18U-150: 15Vdc, 1.2A; For Model PSAA18U-240: 24Vdc, 0.75A.

<b>Particulars: test item vs. test requirements</b>	
Equipment mobility .....	movable
Operating condition .....	continuous
Mains supply tolerance (%) .....	+10%, -10%
Tested for IT power systems .....	No
IT testing, phase-phase voltage (V) .....	N/A
Class of equipment .....	Class I (earthed)
Mass of equipment (kg) .....	0.14 kg
Protection against ingress of water .....	IP X0

<b>Possible test case verdicts:</b>	
- test case does not apply to the test object .....	N / A
- test object does meet the requirement .....	Pass
- test object does not meet the requirement .....	Fail (acceptable only if a corresponding, less stringent

national requirement is "Pass")

**General remarks:**

- "(see Enclosure #)" refers to additional information appended to the Test Report
- "(see appended table)" refers to a table appended to the Test Report
- Throughout the Test Report a point is used as the decimal separator

GENERAL PRODUCT INFORMATION:	
CA1.0	<b>Report Summary</b>
CA1.1	N/A
CB1.0	<b>Product Description</b>
CB1.1	Electronic components mounted on PWB and housed in a plastic enclosure.
CC1.0	<b>Model Differences</b>
CC1.1	Models PSAA18U-120, PSAA18U-150, PSAA18U-240 are similar to Model PSAA18U-090 except for output rating, model designation and the components listed in Miscellaneous ID 7-01.
CD1.0	<b>Additional Information</b>
CD1.1	N/A
CE1.0	<b>Technical Considerations</b>
CE1.2	The product was submitted and evaluated for use at the maximum ambient temperature (Tma) permitted by the manufacturer's specification of: 40°C
CE1.3	The means of connection to the mains supply is: Pluggable A
CE1.4	The product is intended for use on the following power systems: TN
CE1.5	The equipment disconnect device is considered to be: Appliance inlet
CE1.14	The following are available from the Applicant upon request: Installation (Safety) Instructions / Manual
CE2.0	Unless otherwise specified, all tests are performed on the equipment with installed F1 fuses, by Wickmann, type 392, Rated T2A, 250Vac representing worse case among all fuses submitted under this investigation.